

NOTE

Further Spread of the Palearctic *Berytinus minor* in
North America (Hemiptera: Berytidae)

In recent years more attention has been focused on detecting exotic insects in North America. Improved modes of transportation increase the chances of invasions, and it is apparent that quarantine procedures cannot entirely prevent foreign species from entering the country. Of the more than 70 species of Heteroptera in the northeastern United States that are known to have a Holarctic distribution, 23 to 36 are believed to represent inadvertent introductions with man's commerce, probably with ship ballast or nursery stock (Slater, 1974. Mem. Entomol. Soc. Conn. 1974:145-213). Nearly all these emigrant species of Heteroptera are reported soon after their discovery in North America, but if they are innocuous insects, they are often forgotten so that any subsequent spread is difficult to trace.

Berytinus minor (Herrich-Schaeffer) is a Palearctic stilt bug regarded as artificially introduced into North America early in this century. (Recently I found among unsorted material in the U.S. National Museum collection a specimen of *B. montivagus* (Meyer) intercepted at New York City, March 10, 1937, on shamrocks from Ireland.) Walley (1935. Can. Entomol. 67:159-160) first reported *B. minor* in North America based on a specimen collected in 1929 from Prince Edward Co., Ontario, Canada. The first United States record was that of Harris (1941. Bull. Brooklyn Entomol. Soc. 36:105-109) from Chebogan Co., Michigan. Wheeler (1970. Can. Entomol. 102:876-886) summarized the distribution, which at the time included Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Ohio, and Quebec. This stilt bug offers an opportunity to compare the spread of a ground-inhabiting heteropteran with that of "weed species" whose capacity for rapid dispersal is well known (Slater. Op. cit.).

The following additional records of *B. minor* in North America have now become available: MAINE: Eagle Lake, 26 July 1966; MICHIGAN: Bay Co., 17 July 1958, R. R. Dreisbach. NEW JERSEY: Haddonfield, 18 Oct. 1970, M. D. Leonard. NEW YORK: Boston, Mar. 1973, G. Gorecki; Corning, 15 May, J. Bauer; Dryden, 27 April 1970, D. B. Smith; McLean Reserve, 16 May 1963, J. Williams. PENNSYLVANIA: Bucks Co., Horseshoe Bend, Neshaminy Creek NE of Jamison, June 1956, W. Ivie; Bucks Co., Jamison, 19 July 1973, beaten from *Picea abies*, J. F. Stimmel; Dauphin Co., Harrisburg, 1 Sept. 1972, T. J. Henry and 24 Jan. 1973, in duff under Andorra juniper, T. J. Henry; Erie Co., North East, 26 May, 4-11 Aug., 18 Aug., 15-22 Sept. 1972, in pitfall traps, G. L. Jubbs, Jr. and E. C. Mas-

teller; Lebanon Co., nr. Lickdale, 3 May 1978, sweeping winter wheat, A. G. Wheeler, Jr.; Mifflin Co., Reedsville, 14 July 1976, M. A. Farrell; Montgomery Co., Dresher, in duff under *Picea pungens*, F. Stearns. WEST VIRGINIA: Pocahontas Co., Cranberry Visitors Center, 16 Sept. 1978, beaten from *Picea glauca*, A. G. Wheeler, Jr.

The distribution of *B. minor* in North America is extended to the south by more than 200 miles to include Pennsylvania and West Virginia. This berytid lives mainly under mats of white clover and is most frequently taken in spring and fall when adults are dispersing from or moving to their overwintering sites. The spread potential of the Berytidae is small when compared to many other heteropteran families (Leston, 1957, Syst. Zool. 6:41-46), so one would not consider *B. minor* a likely candidate for the nearly transcontinental dispersal that has occurred in some of the introduced weed-feeding Miridae. The apparent abundance of this species in southern Canada along Lake Ontario, in parts of New England, and in the vicinity of Ithaca, N.Y. suggests that some natural dispersal has occurred.

The collection of this berytid at nearly 4,000 ft in the Monongahela National Forest of West Virginia is difficult to account for by natural dispersal. A specimen was taken on an ornamental white spruce on the landscaped grounds of the Cranberry Visitors Center; the surrounding Cranberry Glades botanical area (750 acres) lies in an undisturbed high mountain valley. The ground-dwelling habits of *B. minor*, coupled with its winter collection from duff under ornamental conifers, suggest that it has reached the West Virginia mountains and spread to other parts of its known range mainly by commerce, most likely with the movement of plant material.

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